COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Valley Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Pactiv Corporation
Winchester, Frederick County, Virginia
Permit No. VRO81095

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Pactiv Corporation has applied for renewal of its Title V Operating Permit for its extruded polystyrene foam production facility in Winchester, Virginia. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:_____ Date: 5/13/05

Air Permit Manager:_____ Date: 5/13/05

Deputy Regional Director:_____ Date: 5/13/05

.

FACILITY INFORMATION

Permittee
Pactiv Corporation
P.O. Box 3178
Winchester, Virginia 22603

Facility
Pactiv Corporation
172 Pactiv Way
Winchester, Virginia 22603

Plant ID No.: 51-069-0096

SOURCE DESCRIPTION

SIC Code: 3086 - Plastics Foam Products
NAICS Code: 326140 - Polystyrene Foam Product Manufacturing

Pactiv operates an extruded polystyrene foam production facility in Winchester, Virginia. The facility produces disposable foam products for the consumer market such as plates, platters, bowls, trays and a variety of "take-out" type food containers and industrial foam products for building underlayment and insulation. There are two tableware extrusion lines that produce rollstock. Rollstock is then converted into finished products by eight thermoforming lines. The facility also has two industrial product extrusion lines and one housewrap converting line. In addition, there are four reclaim lines to reprocess off spec and trim scrap. The basic operations at the facility include raw material receiving and handling, extrusion, roll storage, thermoforming, finished goods storage and product reclaim.

The facility is a Title V major source of volatile organic compounds (VOCs) and a hazardous air pollutant (HAP), ethyl chloride. Ethyl chloride is used as a blowing agent. This source is located in a recently designated nonattainment area for ozone which is under an Early Action Compact. The facility is located in an attainment area for all other pollutants and is a prevention of significant deterioration (PSD) major source. The facility was previously permitted under a PSD Permit issued on December 16, 1991, and a minor new source review (NSR) permit for control equipment issued on September 21, 1994. These permits were superseded by a minor NSR permit issued on February 9, 1996, after the U.S. Environmental Protection Agency (USEPA) agreed the facility was not subject to PSD. USEPA required the permit to include a volatile organic compound emission limit less than 250 tons per

year non-fugitive emissions. The basis for this limit was to ensure that the facility is minor with respect to PSD. Previous determinations declared that the emissions from the finished goods warehouses were fugitive in nature. However, through review of recent USEPA applicability determinations, the Department of Environmental Quality (DEQ) in December 2003 determined that the emissions from the finish goods warehouses are non-fugitive in nature and are required to be included for purposes of PSD applicability. A copy of the DEQ determination and the USEPA applicability determinations are enclosed as Attachment A.

The February 9, 1996 minor NSR permit was modified on March 25, 1998 and amended on March 25, 2003. The facility was also issued a minor NSR permit dated June 30, 2000 to install and operate three resin storage silos and three fluff storage silos, a minor NSR permit on February 2, 2001, which was amended on March 21, 2003, to install and operate one flexographic printer and a minor NSR permit on September 26, 2002, which was amended on October 20, 2004, to modify and operate two storage silos.

CHANGES TO EXISTING TITLE V PERMIT

The following are changes to the existing Title V permit since the issuance of the Title V permit significant modification on June 17, 2003:

- Include the Compliance Assurance Monitoring (CAM) Plan for the regenerative thermal oxidizer (Section III).

- Incorporate the permit conditions from Pactiv's minor NSR permit dated September 26, 2002 and amended on October 20, 2004, to modify and operate two storage silos (Section IV). Details for this change are provided below in the Emission Unit Applicable Requirements section for the Green Guard Underlayment and Green Guard Insulation Products Lines, E-1 and E-6.

- Revise the list of insignificant emission units (Section VI).

- The State Air Pollution Control Board took final action and approved the establishment of emission control areas and Reasonably Available Control Technology (RACT) requirements for Winchester City and Frederick County. These changes to the State Regulations for the Control and Abatement of Air Pollution, which became effective March 24, 2004, require presumptive RACT for selected volatile organic compound (VOC) sources. As a result, the facility is subject to the requirements of 9 VAC 5 Chapter 40, Article 25 (Emissions Standards for Volatile Organic Compound Storage and Transfer Operations (Rule 4-25)). Specifically, select storage tanks at the facility are subject to the filling of storage tanks portions of Rule 4-25**.** The facility is also

subject to 9 VAC 5 Chapter 40, Article 36 (Emission Standards For Flexographic, Packaging Rotogravure, and Publication Rotogravure Printing Lines (Rule 4-36)) because it operates flexographic printing lines (Section V).

- 40 CFR Part 63, Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) will become applicable during the term of the permit and placeholder requirements for the rule have been included (Section V).

- The listed inapplicable requirements, Rules 4-1, 4-2, 4-25 and 4-36, were removed from the table because they are now applicable requirements due to the establishment of emission control areas and Reasonably Available Control Technology (RACT) requirements for Winchester City and Frederick County. Also, the inapplicable requirement, 9 VAC 5 Chapter 40, Article 3, listed has been revised to 9 VAC 5 Chapter 60, Article 4, because 9 VAC 5 Chapter 40, Article 3 was repealed and replaced by 9 VAC 5 Chapter 60, Article 4 (Section VII).

- The general conditions in the permit have been updated to reflect changes to boilerplate language (Section VIII). Also, per Pactiv's request, a provision for operational flexibility has been added to the general conditions, General Condition CC. However, it should be noted that there are few facility changes that would qualify under this condition as operational flexibility changes.

The Title V permit does not include a requirement for the facility to conduct periodic product retention testing. However, in response to DEQ's request to reevaluate facility-wide non-fugitive VOC emissions, the facility recently conducted retention testing and is reviewing and modifying its methodology for calculating VOC emissions. The methodology is based on mass balance. After the test results have been reviewed and approved by DEQ, the retention factors developed from the testing will be used in a DEQ-approved emissions calculation methodology.

COMPLIANCE STATUS

The facility is inspected once every two years. The most recent inspection was conducted on March 9, 2004, and the facility was found to be operating in compliance with all applicable requirements.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Table I. Significant Emission Units

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Tableware Product Lines (E-2 and E-3)							
ES-21 – ES-22	-	Foam Extruders E-2 and E-3	-	-	-	-	3/25/03
ES-27 ES-28 ES-28a	S27	Extrusion Laminator E-2	-	Electrostatic Precipitator (Smog Hog) United Air Specialists Model # SH20PEH	C27	PM/PM10	3/25/03
ES-29 ES-29a ES-30	S29	Extrusion Laminator E-3	-	Electrostatic Precipitator (Smog Hog) United Air Specialists Model # SH20PEH	C29	PM/PM-10	3/25/03
ES-31	-	Flexographic Printer	1250 lbs of foam/hr	-	-	-	3/21/03
ES-67	-	Flexographic Printer	1250 lbs of foam/hr	-	-	-	3/21/03
ES-32	-	Finished Roll Storage Warehouse	-	-	-	-	3/25/03
ES-33	S75	Roll and Scrap Grinders including Storage Area	1000 lbs of product/hr annual average	16.7 R95NG1 Regenerative Thermal Oxidizer	C75	VOC	3/25/03

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ES-33	V42 – V45 And V64 – V66	Roll and Scrap Grinders including Storage Area	1000 lbs of product/hr annual average	American Air Filter Co. Baghouse Model # 8-36-396	C42 – C45	PM/PM-10	3/25/03 and 6/30/00
				Ultra Industries Baghouse Model # BBVC-64M36-84	C64 – C66		
	V46 V48 V49			DCE-Vokes, Inc. Baghouse Model # DLMV30/1SH	C46, C48 C49		
ES-34	-	Finished Goods Storage Warehouse	-	-	-	-	3/25/03
ES-42 – ES-46 ES-48 ES-49	S75	Fluff (Ground Scrap) Storage Silo	2513 ft^3 each	16.7 R95NG1 Regenerative Thermal Oxidizer	C75	VOC	3/25/03
ES-64 – ES-66	S75	Fluff (Ground Scrap) Storage Silo	2513 ft^3 each	16.7 R95NG1 Regenerative Thermal Oxidizer	C75	VOC	6/30/00
ES-42 – ES-45	V42 – V45	Fluff (Ground Scrap) Storage Silo	2513 ft^3 each	American Air Filter Co. Baghouse Model # 8-36-396	C42 – C45	PM/PM-10	3/25/03
ES-64 – ES-66	V64 – V66	Fluff (Ground Scrap) Storage Silo	2513 ft^3 each	Ultra Industries Baghouse Model # BBVC-64M36-84	C64 – C66	PM/PM-10	6/30/00
ES-46 ES-48 ES-49	V46 V48 V49	Fluff (Ground Scrap) Storage Silo	2513 ft^3 each	DCE-Vokes, Inc. Baghouse Model # DLMV30/1SH	C46 C48 C49	PM/PM-10	3/25/03

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ES-54 – ES-55	S75	Reclaim Extruder	-	16.7 R95NG1 Regenerative Thermal Oxidizer	C75	VOC	3/25/03
ES-54 – ES-55	S54	Reclaim Extruder	-	Electrostatic Precipitator (Smog Hog) United Air Specialists Model # SH20PEH	C54	PM/PM-10	3/25/03
ES-56 – ES-57	V56 – V57	Scrap Storage Bin	-	DCE-Vokes, Inc. Baghouse Model # DLMV30/1SH	C56 – C57	PM/PM-10	3/25/03
ES-75	S75	Regenerative Thermal Oxidizer	5.9 MMBtu/hr; 300 lbs/hr Hydrocarbon input	-	-	-	3/25/03
Green Guard Underlayment and Green Guard Insulation Product Lines (E-1 and E-6)							
ES-20	-	Foam Extruder E-1	-	-	-	-	3/25/03
ES-24	-	Foam Extruder E-6	-	-	-	-	3/25/03
ES-25 ES-25a ES-26 ES-26a	S25	Extrusion Laminator	-	Electrostatic Precipitator (Smog Hog) United Air Specialists Model # SH20PEH	C25 – C26	PM/PM-10	3/25/03
ES-33a	V50 – V51	Roll and Scrap Grinders including Storage Area	1000 lbs of product/hr annual average	American Air Filter Co. Baghouse Model # 8-36-396	C50 – C51	PM/PM-10	3/25/03

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ES-50 – ES-51	V50 – V51	Fluff (Ground Scrap) Storage Silo	2513 ft^3 each	American Air Filter Co. Baghouse Model # 8-36-396	C50 – C51	PM/PM-10	3/25/03
ES-52 – ES-53	S52	Reclaim Extruders R-5 and R-6		Electrostatic Precipitator (Smog Hog) United Air Specialists Model # SH20PEH	C52	PM/PM-10	3/25/03
ES-58	-	Finished Goods Storage Warehouse	-	-	-	-	3/25/03
ES-60	V51	Fluff (Ground Scrap) Storage Silo	2513 ft^3	American Air Filter Co. Baghouse Model # 8-36-396	C51	PM/PM-10	10/20/04
ES-110	-	Ethyl Chloride Tank	18,000 gallons	-	-	-	-
ES-114	-	Blowing Agent Tank	30,000 gallons	-	-	-	-
ES-115	-	Flexographic Printer	1700 lbs of foam/hr	-	-	-	3/21/03
ES-116	-	Flexographic Printer	3000 lbs of foam/hr	-	-	-	3/21/03

*The Size/Rated capacity is provided for informational purposes only and is not an applicable requirement.

EMISSIONS INVENTORY

A copy of the 2003 annual emission update is attached as Attachment B. Emissions are summarized in the following tables.

Table II. 2003 Actual Criteria Pollutant Emissions

	Criteria Pollutant Emissions (tons/year)				
Emission Unit	VOC	CO	SO_2	PM-10	NO_x
Extruded Polystyrene Foam Production Facility	618.15	0.0	0.0	1.26	0.89
Total	618.15	0.0	0.0	1.26	0.89

Table III. 2003 Actual Hazardous Air Pollutant Emissions

Pollutant	Hazardous Air Pollutant Emissions in Tons/Year
Ethyl Chloride	244.14

EMISSION UNIT APPLICABLE REQUIREMENTS

Tableware Product Lines, E-2 and E-3

Limitations

The following limitations are state BACT and/or other applicable requirements from the minor NSR permit dated June 30, 2000. A copy of the permit is enclosed as Attachment C.

Condition 3: Particulate emissions from each fluff storage silo (ES-64 - ES-66) shall be controlled by a fabric filter. Each fabric filter shall be provided with adequate access for inspection.

Condition 4: Volatile organic compound (VOC) emissions from each fluff storage silo (ES-64 - ES-66) shall be controlled by the existing regenerative thermal oxidizer (RTO) (ES-75).

Condition 7: Visible emissions from each fluff storage silo (ES-64 - ES-66) shall not

exceed 5% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).

Condition 16: Requirements necessary to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices and process equipment which affect such emissions.

The following limitations are state BACT and/or other applicable requirements from the minor NSR permit dated March 25, 2003. A copy of the permit is enclosed as Attachment D.

Condition 3: VOC emissions shall be controlled by use of proven blowing agents and/or by the use of the regenerative thermal oxidizer (RTO) (ES-75).

Condition 4: The RTO (ES-75) operating temperature shall be maintained between 1450°F and 2100°F in the center of the gravel bed (designated as TE-3).

Condition 5: The approved fuel for the RTO (ES-75) is natural gas. A change in the fuel may require a permit to modify and operate.

Condition 6: Visible emissions from the RTO (ES-75) shall not exceed 5 percent opacity except during periods of scheduled maintenance (such as bake-out periods) for the RTO, when visible emissions shall not exceed 20 percent opacity. This condition applies at all times except during startup, shutdown, and malfunction. Opacity shall be determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

Condition 7: VOC emissions shall be controlled by the existing RTO (ES-75) with a destruction efficiency of not less than 95% under maximum load.

Condition 14: Requirements necessary to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices and process equipment which affect such emissions.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-80, New Source Standard for Visible Emissions
9 VAC 5-40-260, Existing Source Standard for Particulate Matter (ACQR 1-6)

The following conditions in the Title V permit were established pursuant to these Codes:

Condition III.A.2:	Visible emissions from each foam extruder (ES-21 and ES-22), extrusion laminator stack (S27 and S29), reclaim extruder stack (S54), scrap storage bin vent (V56 and V57) and fluff storage silo vent (V42 - V46, V48 and V49) shall not exceed twenty (20) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty (30) percent opacity. This condition applies at all times except during startup, shutdown and malfunction.
Condition III.A.4:	Particulate emissions from each foam extruder (ES-21 and ES-22), extrusion laminator stack (S27 and S29), reclaim extruder stack (S54), scrap storage bin vent (V56 and V57) and fluff storage silo vent (V42 - V46, V48, V49 and V64 - V66) shall not exceed the process weight limit as determined by the equation $E = 4.10P^{0.67}$, where E is the emission limit in lbs/hr and P is the process weight rate in tons/hr.

Periodic Monitoring

The monitoring requirements in Conditions 5 and 6 of the minor NSR permit dated June 30, 2000 have been modified to meet Part 70 requirements.

The permit requires each fabric filter (C42 - C46, C48, C49, C56 and C57) to be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall, to the extent practicable, be maintained by the permittee such that it is in proper working order at all times.

The permit contains a requirement that each fluff storage silo fabric filter (C64 - C66) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter is operating.

The permit also requires the control monitoring device used to continuously measure the differential pressure drop across the fabric filter (C64 - C66) to be observed by the permittee with a frequency of not less than once per week.

The permit requires operation of a fabric filter for each fluff storage silo (ES-42 - ES-46, ES-48 and ES-49) and scrap storage bin (ES-56 and ES-57) to demonstrate compliance with the particulate matter and visible emission requirements. A properly operating fabric filter can achieve compliance with the process weight rate emissions limit. Also, if the fabric filters are operating properly, compliance with the 20% opacity limit for each fluff storage silo (ES-42 - ES-46, ES-48 and ES-49) and scrap storage bin (ES-56 and ES-57) can be achieved since there should be no visible emissions from these units. This is the case because the fabric filters eliminate the particulates which are the source of the visible emissions. Therefore, if visible emissions are seen from a fluff storage silo vent (V42 - V46, V48 and V49) or scrap storage bin vent (V56 and V57) it can be reasonably assumed that there is a problem with the fabric filter. The permit contains a requirement for the permittee to conduct weekly inspections of each fluff storage silo vent (V42 - V46, V48 and V49) and scrap storage bin vent (V56 and V57). Each inspection shall include an observation of the presence of visible emissions and the pressure drop across each fabric filter (C42 - C46, C48, C49, C56 and C57). If during the inspection visible emissions are observed, a visible emission evaluation (VEE) of the stack shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9, unless timely corrective action is taken such that the fabric filter resumes operation with no visible emissions. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 20%, the VEE shall be conducted for a total of 60 minutes.

The permit requires operation of a fabric filter for the fluff storage silos (ES-64 - ES-66) to demonstrate compliance with the particulate matter and visible emission requirements. A properly operating fabric filter can achieve compliance with the process weight rate emissions limit. Also, if the fabric filters are operating properly, compliance with the 5% opacity limit for the fluff storage silos (ES-64 - ES-66) can be achieved since there should be no visible emissions from these units. This is the case because the fabric filters eliminate the particulates which are the source of the visible emissions. Therefore, if visible emissions are seen from a fluff storage silo vent (V64 - V66) it can be reasonably assumed that there is a problem with the fabric filter. The permit contains a requirement for the permittee to conduct weekly inspections of each fluff storage silo vent (V64 - V66). Each inspection shall include an observation of the presence of visible emissions and the pressure drop across each fabric filter (C64 - C66). If during the inspection visible emissions are observed, a visible emission evaluation (VEE) of the stack shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9, unless timely corrective action is taken such that the fabric filter resumes operation with no visible emissions. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 5%, the VEE shall be conducted for a total of 60 minutes.

The weekly inspections will satisfy the periodic monitoring requirement for the visible emission limitations. Frequent checks for visible emissions will limit malfunctions of the fabric filters. As long as the fabric filters are operating properly, there is little likelihood of violating the visible emission limitation. The fabric filters will limit the amount of particulates that are emitted thereby limiting visible emissions.

The permittee will maintain material throughput records for the Tableware product lines to demonstrate compliance with the particulate matter limitation. The particulate matter limitation for each emission unit listed in the table below was determined by the equation $E = 4.10P^{0.67}$, where E is the emission limit in lbs/hr and P is the process weight rate in tons/hr. The maximum estimated emission rates were calculated based on stack testing and engineering calculations conducted by the permittee to develop standardized emission factors applicable to their specialized industry. As shown in the table below, there is reasonable assurance that violations of the emission limitations will not occur because these limits can be met with no controls.

Emission Unit	Pollutant	Limitation (lb/hr)	Maximum Estimated Emission Rate (lb/hr)
Extrusion Lines E-2 and E-3	PM/PM-10	2.99 (each)	0.1 (each)
Reclaim Extruders (ES-54 and ES-55)	PM/PM-10	6.07	0.14

Compliance Assurance Monitoring (CAM)

The pollutant specific emissions unit (PSEU) includes the fluff storage silos (ES-42 - ES-46, ES-48, ES-49 and ES-64 - ES-66), reclaim extruder die (ES-54) and reclaim extruder vent (ES-54 and ES-55) in the recycling process of scrap material. The PSEU has the potential to emit more than 100 tons per year of uncontrolled emissions. The regenerative thermal oxidizer (RTO) is used to reduce VOC emissions. Therefore, since the PSEU has uncontrolled emissions greater than or equal to 100 tons per year, is subject to an emission limitation (245 tons per year) and has a control device, the RTO, to meet that limit, the RTO is subject to 40 CFR Part 64, Compliance Assurance Monitoring.

The Regenerative Thermal Oxidizer CAM Plan (Attachment E) includes the following requirements:

The RTO chamber temperature has been selected as the first indicator because it is indicative of the RTO operation (combustion occurring within the chamber). If the chamber temperature decreases significantly, complete combustion may not occur and the level of destruction efficiency may not be achieved. Literature has shown that the control efficiency achieved by a thermal incinerator such as a RTO is a function of its operating temperature. Therefore, by maintaining the operating temperature at or above a minimum, a level of control efficiency can be expected to be achieved.

The second indicator selected was a work practice comprised of a daily visual inspection of the supplemental fuel indicator valves during each operating day and an annual inspection of the two poppet

valves within the RTO. A daily visual inspection verifies that the valves are in the "ON" position, which indicates that natural gas is being fed to the RTO and the RTO is functioning. Additionally, an annual inspection of the two poppet valves within the RTO was selected because the poppet valves are critical to the operation of the RTO. The poppet valves control and alternate the direct flow of the VOC laden air to the RTO combustion chamber. The annual inspection will require the RTO to be shutdown.

Third, the facility shall conduct a Method 25 or 25A performance test on the RTO to verify compliance with the destruction efficiency of not less than 95% in the permit. The Method 25 performance test shall be completed within 6 months from the issuance of the permit and repeated once every five years thereafter.

There is also a requirement in the permit that the permittee will continuously monitor and record the temperature of the RTO at the designated location, TE-3. The monitoring device will be installed in an accessible location and calibrated, maintained and operated according to the manufacturer's specifications. The calibration of the monitoring device will be verified every six (6) months.

Recordkeeping

The recordkeeping requirements in Condition 8 of the minor NSR permit dated June 30, 2000 and Condition 9 of the minor NSR permit dated March 25, 2003 have been modified to meet Part 70 requirements.

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include:

- The annual number of operating hours in which the RTO (ES-75) did not operate, calculated as the sum of each consecutive twelve (12) month period.
- RTO (ES-75) natural gas consumption, calculated as the sum of each consecutive twelve (12) month period.
- The annual throughput of VOCs to, and exhausted from, the RTO (ES-75), calculated as the sum of each consecutive twelve (12) month period.
- Monthly material balance of blowing agents consumed and emitted.
- Monthly material throughput, in pounds, for each Tableware product line, E-2 and E-3.
- Inspection records as required by Conditions III.B.4 and III.B.5 including the date and time of the inspections.
- Calibration of the monitoring device for temperature.
- Results of all visible emissions evaluations.
- Operation and control device monitoring records for each fabric filter for the fluff storage silos (ES-64 - ES-66) as required by Condition III.B.3.
- Air pollution control equipment training provided and all scheduled and non-scheduled

maintenance as required by Condition III.A.9.

The permittee is also required to maintain records of all monitoring and testing required by the CAM plan. These records include:

- Measured temperature of the RTO (ES-75) at TE-3.
- Records of daily inspections of the supplemental fuel indicator valves and the annual inspection of the poppet valves.
- Method 25/25A stack test results.
- Records of all excursions, including date, time and corrective actions taken.

Testing

The permit includes the requirement in the Regenerative Thermal Oxidizer CAM Plan that the permittee conduct a Method 25 or 25A performance test on the RTO to verify compliance with the destruction efficiency.

A table of test methods has been included in the permit if testing, in addition to the testing and monitoring specified in this permit, is performed pursuant to a request from DEQ. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The reporting requirements in Condition 10 of the minor NSR permit dated March 25, 2003 and Condition 13 of the minor NSR permit dated June 30, 2000 have been incorporated into the permit.

The permit requires quarterly reports documenting the following:

- The amounts and types of VOC blowing agents consumed and emitted from the Tableware product lines, E-2 and E-3, during each month of the quarter.
- The number of operating hours in which the RTO (ES-75) did not operate, calculated for each month of the quarter.
- The throughput of VOCs to, and exhausted from, the RTO (ES-75), calculated for each month of the quarter.

The permit also requires notification of the intention to shutdown or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown.

The permit requires the permittee to submit a written report containing the following information

pertaining to the CAM Plan for the RTO (ES-75) no later than **March 1** and **September 1** of each calendar year:

- Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions and the corrective actions taken;
- A description of actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the plan has been completed and reduced the likelihood of similar levels of excursions.

Streamlined Requirements

The 5% opacity limit for the RTO is more stringent than the Virginia Administrative Code Standard for visible emissions, 9 VAC 5-50-80. Therefore, only the more stringent opacity was included in the permit.

Green Guard Underlayment and Green Guard Insulation Products Lines, E-1 and E-6

Limitations

The following limitations are state BACT and/or other applicable requirements from the minor NSR permit dated October 20, 2004. A copy of the permit is enclosed as Attachment F.

Condition 3: Particulate emissions from the fluff storage silo (ES-60) shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection.

Condition 6: Visible emissions from the fluff storage silo (ES-60) shall not exceed 5% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).

Condition 11b: Authorization to modify the fluff storage silo (ES-60) shall become invalid, unless an extension is granted by the DEQ, if a program of modification is discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a DEQ approved period between phases of a phased construction project.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-80, New Source Standard for Visible Emissions
9 VAC 5-40-260, Existing Source Standard for Particulate Matter (ACQR 1-6)

The following conditions in the Title V permit were established pursuant to these Codes:

Condition IV.A.3:	Visible emissions from each foam extruder (ES-20 and ES-24), extrusion laminator stack (S25), reclaim extruder stack (S52) and fluff storage silo vent (V50) shall not exceed twenty (20) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty (30) percent opacity. This condition applies at all times except during startup, shutdown and malfunction.
Condition IV.A.5:	Particulate emissions from each foam extruder (ES-20 and ES-24), extrusion laminator stack (S25), reclaim extruder stack (S52) and fluff storage silo (ES-50, ES-51 and ES-60) shall not exceed the process weight limit as determined by the equation $E = 4.10P^{0.67}$, where E is the emission limit in lbs/hr and P is the process weight rate in tons/hr.

Monitoring and Recordkeeping

The monitoring and recordkeeping requirements in Conditions 4, 5 and 7 of the minor NSR permit dated October 20, 2004 and Condition 9 of the minor NSR permit dated March 25, 2003 have been modified to meet Part 70 requirements.

The permit requires the fabric filter (C50) to be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall, to the extent practicable, be maintained by the permittee such that it is in proper working order at all times.

The permit requires the fabric filter (C51) to be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter is operating.

The permit also requires the control monitoring device used to continuously measure the differential pressure drop across the fabric filter (C51) to be observed by the permittee with a frequency of not less

than once per week. The permittee shall keep a log of the observations from the control monitoring device.

The permit requires operation of a fabric filter for the fluff storage silo (ES-50) to demonstrate compliance with the particulate matter and visible emission requirements. A properly operating fabric filter can achieve compliance with the process weight rate emissions limit. Also, if the fabric filter is operating properly, compliance with the 20% opacity limit for the fluff storage silo (ES-50) can be achieved since there should be no visible emissions from this unit. This is the case because the fabric filter eliminates the particulates which are the source of the visible emissions. Therefore, if visible emissions are seen from the fluff storage silo vent (V50) it can be reasonably assumed that there is a problem with the fabric filter. The permit contains a requirement for the permittee to conduct weekly inspections of the fluff storage silo vent (V50). Each inspection shall include an observation of the presence of visible emissions and the pressure drop across the fabric filter (C50). If during the inspection visible emissions are observed, a visible emission evaluation (VEE) of the stack shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9, unless timely corrective action is taken such that the fabric filter resumes operation with no visible emissions. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 20%, the VEE shall be conducted for a total of 60 minutes. All observations, VEE results, and corrective actions taken shall be recorded.

The permit requires operation of a fabric filter for the fluff storage silos (ES-51 and ES-60) to demonstrate compliance with the particulate matter and visible emission requirements. A properly operating fabric filter can achieve compliance with the process weight rate emissions limit. Also, if the fabric filter is operating properly, compliance with the 5% opacity limit for the fluff storage silos (ES-51 and ES-60) can be achieved since there should be no visible emissions from these units. This is the case because the fabric filter eliminates the particulates which are the source of the visible emissions. Therefore, if visible emissions are seen from the fluff storage silo vent (V51) it can be reasonably assumed that there is a problem with the fabric filter. The permit contains a requirement for the permittee to conduct weekly inspections of the fluff storage silo vent (V51). Each inspection shall include an observation of the presence of visible emissions and the pressure drop across the fabric filter (C51). If during the inspection visible emissions are observed, a visible emission evaluation (VEE) of the stack shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9, unless timely corrective action is taken such that the fabric filter resumes operation with no visible emissions. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 5%, the VEE shall be conducted for a total of 60 minutes. All observations, VEE results, and corrective actions taken shall be recorded.

The weekly inspections will satisfy the periodic monitoring requirement for the visible emission limitations. Frequent checks for visible emissions will limit malfunctions of the fabric filters. As long as the fabric filters are operating properly, there is little likelihood of violating the visible emission limitation.

The fabric filters will limit the amount of particulates that are emitted thereby limiting visible emissions.

The permittee will maintain material throughput records for the Green Guard Underlayment and Green Guard Insulation product lines to demonstrate compliance with the particulate matter limitation. The particulate matter limitation for each emission unit listed in the table below was determined by the equation $E = 4.10P^{0.67}$, where E is the emission limit in lbs/hr and P is the process weight rate in tons/hr. The maximum estimated emission rates were calculated based on stack testing and engineering calculations conducted by the permittee to develop standardized emission factors applicable to their specialized industry. As shown in the table below, there is reasonable assurance that violations of the emission limitations will not occur because these limits can be met with no controls.

Emission Unit	Pollutant	Limitation (lb/hr)	Maximum Estimated Emission Rate (lb/hr)
Extrusion Line E-1	PM/PM-10	3.67	0.14
Extrusion Line E-6	PM/PM-10	5.38	0.24
Reclaim Extruders (ES-52 and ES-53)	PM/PM-10	4.76	0.1

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include:

- Monthly material balance of VOC blowing agents consumed and emitted.
- Monthly material throughput, in pounds, for the Green Guard Underlayment and Green Guard Insulation product lines, E-1 and E-6.
- Inspection records as required by Conditions IV.B.4 and IV.B.5 including the date and time of the inspections.
- Results of all visible emissions evaluations.
- Operation and control device monitoring records for the fabric filter (C51) for the fluff storage silos (ES-51 and ES-60) as required by Condition IV.B.3.

Testing

The permit includes the requirement in Condition 8 of the minor NSR permit dated October 20, 2004, that a Reference Method 9 visible emissions evaluation be conducted on the fluff storage silo (ES-60) fabric filter (C51) to demonstrate initial compliance with the visible emission limitation.

A table of test methods has been included in the permit if testing, in addition to the testing and monitoring specified in this permit, is performed pursuant to a request from DEQ. The Department and

EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The reporting requirements in Condition 10 of the minor NSR permit dated March 25, 2003 and Condition 9 of the minor NSR permit dated October 20, 2004 have been incorporated into the permit.

The permit requires quarterly reports documenting the following:

- The amounts and types of VOC blowing agents consumed and emitted from the Green Guard Underlayment product line, E-1, during each month of the quarter.
- The amounts and types of VOC blowing agents consumed and emitted from the Green Guard Insulation product line, E-6, during each month of the quarter.

The permit also requires the reporting requirement of the actual start-up date of the fluff storage silo (ES-60) within 15 days after such date.

Streamlined Requirements

The fluff storage silos (ES-51 and ES-60) have a common vent. The fluff storage silo (ES-51) is subject to the visible emission limitation in 9 VAC 5-50-80 (New Source Standard for Visible Emissions). However, the minor NSR permit dated October 20, 2004 for fluff storage silo (ES-60) requires that visible emissions from this unit not to exceed 5% opacity at all times. Therefore, since the 5% opacity limit for the fluff storage silo (ES-60) is more stringent than the Virginia Administrative Code Standard for visible emissions, 9 VAC 5-50-80, for the fluff storage silo (ES-51), only the more stringent opacity was included in the permit for these units.

Facility Wide Conditions

Limitations

The following limitation is a state BACT requirement from the minor NSR permit dated March 25, 2003. A copy of the permit is enclosed as Attachment D.

Condition 8:	Volatile organic compound (VOC) emissions from the facility shall not exceed 245 tons per year, calculated monthly as the sum of each consecutive twelve (12) month period. Included in this VOC emission limit are all emissions defined as non-fugitive, which are emissions from the extruder die areas, extrusion laminators, roll aging room, fluff

storage silos, reclaim extruders and reclaim extruder vents.

The following limitations are state BACT and/or other applicable requirements from the minor NSR permit issued on March 21, 2003. A copy of the permit is enclosed as Attachment G.

Condition 3:	Volatile organic compound (VOC) emissions from the flexographic printers (ES-31, ES-67, ES-115 and ES-116) shall be controlled by the use of inks which meet the definition of low solvent ink, as applied and as stated in 9 VAC 5-40-5070 C.
Condition 4:	Requirements for minimizing VOC emissions from cleanup, washup and disposal.
Condition 5:	The throughput of VOC to the flexographic printers (ES-31, ES-67, ES-115 and ES-116) shall be no more than 4.0 tons per year, calculated monthly as the sum of each consecutive 12 month period.
Condition 6:	The application of organic hazardous air pollutants (HAPs) on the flexographic printers (ES-31, ES-67, ES-115 and ES-116) shall be no more than 200 kilograms (440 pounds) per month, for every month.
Condition 7:	Emissions from the operation of the flexographic printers (ES-31, ES-67, ES-115 and ES-116) shall not exceed 4.0 tons/yr. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
Condition 8:	Visible emissions from the flexographic printers (ES-31, ES-67, ES-115 and ES-116) shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
Condition 10:	Except as specified in this permit, the flexographic printers (ES-31, ES-67, ES-115 and ES-116) are to be operated in compliance with the federal requirements under 40 CFR 63, Subpart KK.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5 Chapter 40, Article 25, Emissions Standards for Volatile Organic Compound Storage and Transfer Operations
9 VAC 5 Chapter 40, Article 36, Emission Standards for Flexographic, Packaging

Rotogravure, and Publication Rotogravure Printing Lines
9 VAC 5-40-80, Existing Source Standard for Visible Emissions
9 VAC 5-50-80, New Source Standard for Visible Emissions

The following conditions in the Title V permit were established pursuant to these Codes:

Condition V.A.9:	Each storage tank (ES-110 and ES-114) shall be equipped with a control method that will remove, destroy, or prevent the discharge into the atmosphere of at least 60% by weight of VOC emissions during the filling of the storage tank.
Condition V.A.10:	Each storage tank (ES-110 and ES-114) shall be equipped with a control method.
Condition V.A.11:	Visible emissions from each storage tank (ES-110 and ES-114) shall not exceed twenty percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent (30%) opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).

Monitoring and Recordkeeping

The monitoring and recordkeeping requirements in Condition 11 of the minor NSR permit dated March 21, 2003 and Condition 9 of the minor NSR permit dated March 25, 2003 have been modified to meet Part 70 requirements.

The permit requires the permittee to determine compliance with the facility's non-fugitive VOC emission limit by calculating the monthly non-fugitive VOC emissions using an electronic spreadsheet previously approved by the Department of Environmental Quality. The basis for the emission calculation is material balance in which the amount of VOC blowing agent used and the amount of VOC blowing agent retained in the finished product, as determined at the "packing table" immediately after production, are used to calculate the amount of non-fugitive VOCs emitted. The destruction efficiency of the RTO is included in the emissions calculation for VOC emissions required to be controlled by the RTO.

The permit also requires the permittee to determine compliance with the facility's organic HAPs limit by calculating the monthly total organic hazardous air pollutants applied on the flexographic printers (ES-31, ES-67, ES-115 and ES-116) using the following equation:

$$E_{hap} = \sum_{i=1}^{n} M_{mat} W_{hap}$$

Where:

E_{hap}	=	the total HAPs usage, in pounds
M_{mat}	=	the total mass, in pounds, of material as applied during the calendar month
W_{hap}	=	the total weight fraction of HAPs contained in the material, i, as applied

Although the emissions of hazardous air pollutants from the facility's printing operations are below major source thresholds, the facility is subject to 40 CFR 63, Subpart KK, National Emission Standards for the Printing and Publishing Industry (printing and publishing MACT) because it is a major stationary source of a hazardous air pollutant due to non-printing operations. The facility will apply not more than 200 kg per month of organic hazardous air pollutants on product on the flexographic printers. Therefore, it is only subject to the recordkeeping requirements for the printing and publishing MACT and 9 VAC 5 Chapter 60.

The visible emission limits for each storage tank (ES-110 and ES-114) are based on the applicable requirements contained in 9 VAC 5-40-80 and 9 VAC 5-50-80. However, each storage tank is not a source of visible emissions. The volatile organic compound stored in each storage tank does not result in visible emissions. Therefore, no monitoring is required for the storage tanks (ES-110 and ES-114).

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include:

- The annual quantity of fugitive and non-fugitive VOCs emitted from the facility, calculated monthly as the sum of each consecutive twelve (12) month period.
- Annual throughput of VOC (in tons) to the flexographic printers (ES-31, ES-67, ES-115 and ES-116), calculated monthly as the sum of each consecutive twelve (12) month period.
- Annual VOC emissions (in tons) for the flexographic printers (ES-31, ES-67, ES-115 and ES-116), calculated monthly as the sum of each consecutive twelve (12) month period.
- The total mass (in pounds) and organic hazardous air pollutants content of each material applied on the flexographic printers (ES-31, ES-67, ES-115 and ES-116) during each month.
- Material Safety Data Sheets (MSDS) or other vendor information showing the VOC content, HAP content, water content and solids content of each material applied on the flexographic printers (ES-31, ES-67, ES-115 and ES-116).
- Records demonstrating the inks used in the flexographic printers (ES-31, ES-67, ES-115 and ES-116) meet the definition of compliant ink in 9 VAC 5-40-5070.
- The volatile organic compound stored in each storage tank (ES-110 and ES-114) and its vapor pressure in pounds per square inch under actual storage and filling conditions.
- Records certifying the design of and control method for each storage tank (ES-110 and ES-114).

Testing

The permit includes the requirement in Condition 9 of the minor NSR permit dated March 21, 2003, that the facility shall test, at the request of the DEQ, to determine if inks used at the facility meet the definition of compliant ink as stated in 9 VAC 5-40-5070.

A table of test methods has been included in the permit if testing, in addition to the testing and monitoring specified in this permit, is performed pursuant to a request from DEQ. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The reporting requirements in Condition 10 of the minor NSR permit dated March 25, 2003 have been modified to meet Part 70 requirements. The permit requires quarterly reporting requirements of the annual quantity of fugitive and non-fugitive VOCs emitted from the facility.

Streamlined Requirements

9 VAC 5-40-5080 A, Standard for Volatile Organic Compounds, has been streamlined because the existing permit requirement that VOC emissions from the flexographic printers (ES-31, ES-67, ES-115 and ES-116) be controlled by the use of inks which meet the definition of low solvent ink, as applied and as stated in 9 VAC 5-40-5070 C, is as stringent as this standard.

The visible emission limitation in 9 VAC 5-40-80 (Existing Source Standard for Visible Emissions), as specified in Rule 4-36, has not been included for the flexographic printers (ES-31, ES-67, ES-115 and ES-116) because the permit limit of ten percent (10%) opacity is more stringent than the regulatory limit of twenty percent (20%) opacity, including one six-minute period in any one hour not to exceed sixty percent (60%) opacity.

The visible emission limitation in 9 VAC 5-50-80 (New Source Standard for Visible Emissions) has not been included for the flexographic printers (ES-31, ES-67, ES-115 and ES-116) because the permit limit of ten percent (10%) opacity is more stringent than the regulatory limit of twenty percent (20%) opacity, including one six-minute period in any one hour not to exceed thirty percent (30%) opacity.

The visible emission limitation in 9 VAC 5-40-80 (Existing Source Standard for Visible Emissions) for the storage tanks (ES-110 and ES-114) has been streamlined. 9 VAC 5-50-80 (New Source Standard for Visible Emissions), which is more stringent, was determined to be applicable because the construction dates for the storage tanks (ES-110 and ES-114) are after March 17, 1972.

The permittee has voluntarily accepted a monthly total organic hazardous air pollutants limit of 200 kg applied on the flexographic printers which allows streamlining of the requirements of 40 CFR 63, Subpart KK, specifically 40 CFR 63.821(b)(2). This limit, in combination with the recordkeeping requirement to maintain the total mass (in pounds) and organic hazardous air pollutants content of each material applied on the flexographic printers will ensure not more than 400 kg per month of organic hazardous air pollutants is applied on product, thus satisfying MACT requirements. Compliance with this limit will be shown using the following equation:

$$E_{hap} = \sum_{i=1}^{n} M_{mat} W_{hap}$$

Where:

E_{hap} = the total HAPs usage, in pounds
M_{mat} = the total mass, in pounds, of material as applied during the calendar month
W_{hap} = the total weight fraction of HAPs contained in the material, i, as applied

As a result, based on the limit, even if the MSDS were in error by 100 percent, the permittee would not exceed 400 kg per month of organic hazardous air pollutants applied on product. The permittee will rely on the material supplier to provide them VOC and HAP content information for the materials purchased.

The requirement to calculate the monthly total organic hazardous air pollutants applied on the flexographic printers and the recordkeeping requirement to maintain the total mass and organic hazardous air pollutants content of each material applied on the flexographic printers will provide reasonable assurance for compliance with the monthly limit and the MACT, which is the underlying applicable requirement, and satisfy the periodic monitoring requirements.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

STATE-ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Code has specific requirements only enforceable by the State and has been identified as applicable by the applicant:

9 VAC 5-60-320, Standard for Toxic Pollutants

The following limitations are state-only requirements from the minor NSR permit dated March 25, 2003. A copy of the permit is enclosed as Attachment C.

Condition 19: Exhaust streams containing halogenated blowing agents shall not be routed to the RTO, unless DEQ has provided prior written approval to vent such streams to the RTO.

Condition 20: Emissions of ethyl chloride from the operation of the facility shall not exceed 150 pounds per hour.

The following recordkeeping and monitoring is a state-only requirement from the minor NSR permit dated March 25, 2003.

Condition 21: The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Valley Region. These records shall include, but are not limited to, the annual quantity of fugitive and non-fugitive ethyl chloride emitted from the facility calculated monthly as the sum of each consecutive twelve (12) month period. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

Under 9 VAC 5-80-300, inclusion of these requirements in the Title V permit is voluntary. The permittee has requested these requirements be incorporated into the Title V permit for the facility.

FUTURE APPLICABLE REQUIREMENTS

40 CFR Part 63, Subpart EEEE, National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) will become applicable during the term of the permit and placeholder requirements for the rule have been included in the permit.

INAPPLICABLE REQUIREMENTS

An inapplicable requirement identified by the applicant includes 40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. The applicant has stated that this regulation is not applicable for the four storage tanks (ES-110, ES-112, ES-117 and ES-118) constructed after 1984 because each unit is below the applicability capacity of 75

m^3 (19,812.9 gallons).

COMPLIANCE PLAN

Pactiv is currently in compliance with all applicable requirements. No compliance plan was included in the application or in the permit.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
ES-1	Resin Storage Silo #1	9 VAC 5-80-720 B	PM/PM-10	
ES-2	Resin Storage Silo #2	9 VAC 5-80-720 B	PM/PM-10	
ES-3	Resin Storage Silo #3	9 VAC 5-80-720 B	PM/PM-10	
ES-4	Resin Storage Silo #4	9 VAC 5-80-720 B	PM/PM-10	
ES-5	Resin Storage Silo #5	9 VAC 5-80-720 B	PM/PM-10	
ES-6	Resin Storage Silo #6	9 VAC 5-80-720 B	PM/PM-10	
ES-7	Resin Storage Silo #7	9 VAC 5-80-720 B	PM/PM-10	
ES-8	Resin Storage Silo #8	9 VAC 5-80-720 B	PM/PM-10	
ES-9	Resin Storage Silo #9	9 VAC 5-80-720 B	PM/PM-10	
ES-10	Resin Storage Silo #10	9 VAC 5-80-720 B	PM/PM-10	
ES-11	Resin Storage Silo #11	9 VAC 5-80-720 B	PM/PM-10	
ES-12	Resin Storage Silo #12	9 VAC 5-80-720 B	PM/PM-10	
ES-13	Resin Storage Silo #13	9 VAC 5-80-720 B	PM/PM-10	
ES-14	Resin Storage Silo #14	9 VAC 5-80-720 B	PM/PM-10	
ES-15	Vacuum Transfer Blower	9 VAC 5-80-720 B	PM/PM-10	
ES-15a	Vacuum Transfer Blower	9 VAC 5-80-720 B	PM/PM-10	
ES-15b	Vacuum Transfer Blower	9 VAC 5-80-720 B	PM/PM-10	
ES-16	Vacuum Transfer	9 VAC 5-80-720 B	PM/PM-10	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
	Blower			
ES-16a	Vacuum Transfer Blower	9 VAC 5-80-720 B	PM/PM-10	
ES-17	Vacuum Transfer Blower	9 VAC 5-80-720 B	PM/PM-10	
ES-18	Vacuum Transfer Blower	9 VAC 5-80-720 B	PM/PM-10	
ES-19	Vacuum Transfer Blower	9 VAC 5-80-720 B	PM/PM-10	
ES-19a	Vacuum Transfer Blower	9 VAC 5-80-720 B	PM/PM-10	
ES-35	Heated Press (Thermoformer)	9 VAC 5-80-720 B	VOC	
ES-36	Heated Press (Thermoformer)	9 VAC 5-80-720 B	VOC	
ES-37	Heated Press (Thermoformer)	9 VAC 5-80-720 B	VOC	
ES-38	Heated Press (Thermoformer)	9 VAC 5-80-720 B	VOC	
ES-39	Heated Press (Thermoformer)	9 VAC 5-80-720 B	VOC	
ES-40	Heated Press (Thermoformer)	9 VAC 5-80-720 B	VOC	
ES-41	Heated Press (Thermoformer)	9 VAC 5-80-720 B	VOC	
ES-214	Heated Press (Thermoformer)	9 VAC 5-80-720 B	VOC	
ES-47	Green Colorant Storage Silo #15	9 VAC 5-80-720 B	PM/PM-10	
ES-59	Resin Storage Silo #15	9 VAC 5-80-720 B	PM/PM-10	
ES-61	Resin Storage Silo #18	9 VAC 5-80-720 B	PM/PM-10	
ES-62	Resin Storage Silo #19	9 VAC 5-80-720 B	PM/PM-10	
ES-63	Resin Storage Silo #20	9 VAC 5-80-720 B	PM/PM-10	
ES-60a	Flame Retardant Bin #18	9 VAC 5-80-720 B	PM/PM-10	
ES-60b	Flame Retardant Bin #19	9 VAC 5-80-720 B	PM/PM-10	
ES-70	Beringer Pressure Plate	9 VAC 5-80-720 B	VOC	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
	Cleaner			
ES-111	Blowing Agent Tank	9 VAC 5-80-720 B	non-VOC	
ES-112	Fork Lift Propane Tank	9 VAC 5-80-720 B	VOC	1,000 gallons
ES-113	Blowing Agent Tank	9 VAC 5-80-720 B	non-VOC	
ES-117	Propane Tank	9 VAC 5-80-720 B	VOC	1,000 gallons
ES-118	Propane Tank	9 VAC 5-80-720 B	VOC	1,000 gallons
ES-119	Diesel Engine for Sprinkler System	9 VAC 5-80-720 B	Products of diesel fuel combustion	
ES-120	Diesel Engine for Sprinkler System	9 VAC 5-80-720 B	Products of diesel fuel combustion	

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did submit a request for confidentiality. Not all portions of the Title V application are suitable for public review. Therefore, the permittee has submitted a confidential copy and a public copy.

PUBLIC PARTICIPATION

A public notice regarding the draft permit was placed in The Winchester Star, Winchester, Virginia, on October 28, 2004 announcing a 30-day public comment period. EPA was sent a copy of the draft permit and notified of the public notice on October 26, 2004. West Virginia, Pennsylvania and Maryland were sent a copy of the public notice in a letter dated October 26, 2004. All persons on the Title V mailing list were also sent a copy of the public notice in a letter dated October 26, 2004.

Public comments were accepted from October 28, 2004 through November 27, 2004. No comments were received from the affected states. Because of public interest in the permit, DEQ held an informational meeting with interested persons in the Winchester area on November 9, 2004. Subsequent to this meeting, three comments were received from individuals requesting that DEQ convene a public hearing. Following the close of the public comment period, DEQ decided to hold a public hearing and provided 30 days notice for a public hearing by advertisement in The Winchester Star on December 9, 2004. DEQ received written comments from December 9, 2004 through January

25, 2005. This public comment period included a public hearing held on January 10, 2005. During the public comment period, 36 written comments were received. Responses to these public comments are contained in "DEQ Public Hearing Response to Comments Document" dated March 22, 2005. This document is included as Attachment H.

The public comments received primarily pertained to the facility's ethyl chloride emissions. Ethyl chloride is classified as both a federal hazardous air pollutant and a state air toxic. However, there are no federally enforceable applicable requirements that regulate ethyl chloride emissions from the Pactiv facility. Nevertheless, Virginia regulates ethyl chloride emissions as a state air toxic. The state air toxics regulations are not currently part of Virginia's State Implementation Plan (SIP) and, therefore, terms and conditions derived from these regulations are enforceable by the state but not by EPA.

Additionally, on February 9, 1996, Pactiv was issued a pre-construction review air permit under Virginia's minor new source review (NSR) permit program. At the time, ethyl chloride emissions were evaluated in accordance with the state air toxic provisions of Virginia's Regulations for the Control and Abatement of Air Pollution. The emission limitation of 150 pounds per hour contained in the 1996 permit was determined using EPA-approved air dispersion modeling techniques to result in an ambient air concentration below the Significant Ambient Air Concentration (SAAC) and thus below levels that could potentially contribute to the endangerment of human health. A recent modeling analysis conducted using the permitted emission rate of 150 pounds per hour (which remains unchanged from the original NSR permit) and a more current and refined EPA modeling methodology continued to indicate that the predicted maximum hourly offsite ambient air concentration is well below the SAAC. The modeling results also predicted a maximum annual offsite ambient air concentration well below the SAAC.

Also, DEQ is implementing a project for the collection of ambient air samples at Pactiv Corporation's fenceline to be analyzed for ethyl chloride. Based on the laboratory analysis results received to date for the samples collected, the monitored concentrations are well below the model predicted maximum hourly offsite ambient air concentration and the hourly SAAC.

Because the model predicted maximum offsite ambient air concentrations and the maximum monitored concentrations are well below the SAAC, there were no changes to the draft permit following the public review period. EPA was sent a copy of the permit as a proposed permit on March 28, 2005 for a 45-day review period. EPA's comment period ended on May 12, 2005. No comments were received from EPA.

ATTACHMENTS

Attachment A - DEQ Determination and USEPA Applicability Determinations
Attachment B - 2003 Annual Emissions Update

Attachment C - June 30, 2000 Minor NSR Permit
Attachment D - March 25, 2003 Minor NSR Permit
Attachment E - Regenerative Thermal Oxidizer (RTO) Compliance Assurance Monitoring (CAM) Plan
Attachment F - October 20, 2004 Minor NSR Permit
Attachment G - March 21, 2003 Minor NSR Permit
Attachment H - March 22, 2005 DEQ Public Hearing Response to Comments Document

Attachment A

DEQ Determination and USEPA Applicability Determinations

Attachment B

2003 Annual Emissions Update

Attachment C

June 30, 2000 Minor NSR Permit

Attachment D

March 25, 2003 Minor NSR Permit

Attachment E

Regenerative Thermal Oxidizer (RTO) Compliance Assurance Monitoring (CAM) Plan

Attachment F

October 20, 2004 Minor NSR Permit

Attachment G

March 21, 2003 Minor NSR Permit

Attachment H

March 22, 2005 DEQ Public Hearing Response to Comments Document